FLIGHT PATTERNS

January 20th, 2013

Dear Members of the Review Committee,

Flight Patterns LLC respectfully thanks you for reviewing our formal response to the Strathmore Mill Complex Request for Proposals.

We envision converting the Strathmore Mill into the Flight Patterns Eco-Center – a model green facility devoted to arts, education, commerce, and sustainability. With a concerted and phased approach, beginning with the renovation of Building 11 (Segment I of the Montague Planning and Conservation Department's Development Segment Plan), we hope to build a new home for small businesses and artists, professionals and tourists, and teachers and students alike. We have been exhaustively working towards renovation plans that take full advantage of the Mill's optimal environmental precursors and that utilize the latest in sustainable technologies. Through this, Flight Patterns foresees spearheading a new paradigm in post-industrial space rehabilitation, one in which historic preservation can be achieved alongside – and not in opposition to – ecologically-minded and sustainable architectural design.

For over a year, we have studied the complexities of the Strathmore property and analyzed whether our proposed redevelopment goals would prove fruitful – despite a myriad of site-specific challenges. After poring over the findings and recommendations contained in previous development plans, we have confirmed that our vision for the property is very much consistent with the needs of the community. Like the Town of Montague, Flight Patterns is committed to the preservation of the Strathmore's historic integrity, the continued downtown revitalization of Turners Falls, and the fostering of a new creative economy.

However, after several site visits, consultations with specialists from a variety of fields, and multiple conversations with cautious investors, we regretfully conclude that the available feasibility studies are either woefully outdated or logistically ill-suited to the complexities of our redevelopment goals. Before any financial commitments can be made, and before any transfer of ownership can be discussed, a series of new, robust feasibility studies must be conducted.

Although our response to the Request For Proposals does not and can not meet the current criteria set forth by the Town of Montague's Planning and Conservation Department, we herein deliver a detailed summary of our vision, our research thus far, and, most importantly, an outline for what we believe to be the crucial next steps towards redeveloping the Strathmore Mill.

Sincerely,

Marie E. Rossettie
Authorized Member

Benjamin J. Warshaw
Authorized Member

Joel T. Roston
Authorized Member

ENCLOSURE

THE FLIGHT PATTERNS ECO-CENTER

A Sustainable Solution for Creative Modern Living

A formal response to:

TOWN OF MONTAGUE
COMMERCIAL HOMESTEADING PROGRAM

REQUEST FOR PROPOSALS

STRATHMORE MILL COMPLEX REDEVELOPMENT OPPORTUNITY
20 CANAL RD TURNERS FALLS, MA

Drafted by:

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THE FLIGHT PATTERNS ECO-CENTER

A Sustainable Solution for Creative Modern Living

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PRELIMINARY PROPOSAL

The Strathmore Mill sits vacant on a narrow island between the Connecticut River and a hydroelectric canal in the village of Turners Falls, Massachusetts. This former paper mill has survived industrial revolutions, economic booms, and economic busts. Now, after decades of neglectful stewardship, this historic landmark stands on the brink of ruin, desperately in need of rescue. Having exhausted local resources, and the patience of many community members, the Strathmore Mill is at a critical point to either be salvaged or demolished. Flight Patterns foresees a solution that not only saves the Strathmore Mill, but also ushers in a new era of economic and creative prosperity for Turners Falls. Our vision involves converting the Mill into an environmentally and financially sustainable, multi-purpose, and community-driven Eco-Center.

Located just over a pedestrian footbridge from downtown Turners Falls and surrounded by stunning natural vistas, the Strathmore Mill is uniquely suited for our proposed facility. The Mill is perfectly positioned to implement passive heating and cooling techniques, which will drastically reduce the costs of energy expenditures and air conditioning needs. The installation of a "living roof" and a rainwater collection system will further reduce energy demands, increase the roof's life expectancy, reduce sewage system loads, and create a supplemental habitat for surrounding wildlife. The Massachusetts Clean Energy Center's Solarize Mass program could provide upfront tax incentives and rebates for solar panel installation. A 950 kW hydroelectric turbine, owned and operated by Swift River Hydro and housed within the Strathmore Mill itself, could provide clean and affordable energy directly to the Eco-Center via the adjacent power canal. By utilizing these environmentally conscious technologies and designs, we can forge a new future for this post-industrial space.

Turners Falls and the surrounding communities will immediately benefit economically from the Eco-Center, through increased educational and employment opportunities, cultural events, and affordable live/work spaces. By partnering with local organizations, businesses, and educational institutions, we can reduce the costs of redevelopment efforts while providing new jobs to stimulate the Town's economy during the renovation process. New businesses within the completed Eco-Center will include galleries and venues dedicated to arts and entertainment, restaurants specializing in locally sourced foods, a homesteading school, and independent retailers – all of which will boost downtown foot traffic. In the mid-to-long term, the Mill's revitalization will help spur a cultural rebirth in the northern Pioneer Valley as the Eco-Center gains a foothold in the burgeoning ecotourism market, with our sustained environmental initiatives leading the charge.

While we intend to rehabilitate the entire Mill complex over time, we feel that a phased approach is absolutely essential. Though we agree with the general plans outlined in both the 2005 *Strathmore Mill Feasibility Study* (conducted by Finegold Alexander, Tighe & Bond, et al) as well as the updated 2008 *Strathmore Mill Site Development Assessment* by Fuss & O'Neill, we disagree with the scope of the specific phases proposed by these studies. Here is our modified outline for a staged redevelopment:

- Phase 1: Building 11 only (Development Segment I)
- Phase 2: Buildings 1 and 4 (approximately one half of Development Segment II)
- Phase 3: Buildings 2, 5, and 6 (the remaining half of Development Segment II)
- Phase 4: Buildings 3, 7, and 8 (Development Segment III)

The Phase 1 rehabilitation of Building 11 represents a "pilot program" for restoring the rest of the Mill. Due to the collapse of Building 10, Building 11 is currently a stand-alone structure and therefore includes significantly fewer logistical hurdles when compared with the remaining interconnected structures. Various professionals we have consulted have unanimously deemed the general conditions of Building 11 to be the most amenable of all the buildings for immediate rehabilitation. While vehicular access remains problematic, the issues are mitigated somewhat by a tunnel running underneath the Southworth facility to the parking area behind Building 11.

Importantly, successful renovation of Building 11 will increase the likelihood of obtaining state and federal grants for civil engineering projects surrounding the Mill. Most notably, MassWorks grants may be acquired for the renovation of the pedestrian bridge, which in turn will directly increase the feasibility of the remaining Phases 2 through 4.

We agree in principle with several proposals outlined in Fuss & O'Neill's *Strathmore Mill Site Development Assessment*, and will include them in our further site assessment analyses:

- installing a new membrane roof;
- demolishing both the loading dock on the east side of the building as well as the three story steel beam addition on the south side;
- investigating the potential combination of the shorter floors (levels 2 and 3) to create a single high-ceiling second story; and
- installing a vehicle ramp from Canal Road down to the lower parking area behind the building.

Precise subdivision of Building 11 is inherently subject to further structural and market analysis, potentially conducted as outlined in the subsequent **STUDY & ANALYSIS OF EXISTING CONDITIONS** section of this document, as well as ***Appendix C***. At present time, we are considering the following potential usages:

- Levels 6 and 7: approximately 10-15 live/work spaces and artist studio lofts (~7000-8000 sf)
- Level 5: community and educational space, aforementioned homesteading school (~3500 sf)
- Level 4: a street level public event space at Canal Road, galleries, small commercial spaces, and artisanal shops (~3500 sf)
- Levels 2 and 3: if combined, approximately 5-8 additional live/work spaces (~3500 sf)
- Level 1: 8-10 fully sound-proofed, climate-controlled musicians' rehearsal spaces (~3500 sf)

Should combining levels 2 and 3 be deemed unfeasible, usage of those floors may be severely hampered by the low, ~7' ceilings. In this case, we believe a suitably reduced rental price could still make these floors desirable as low-cost artist studios and/or storage spaces. Further, much of levels 1, 2, and 3, are windowless along the canal side of the building. Though potentially unappealing to certain tenants, these enclosed areas may in actuality be ideal for creating self-contained, sound-proofed musicians' studios or climate-controlled storage units (provided issues of humidity and potential water leakages along the canal retaining walls are curtailed).

Though we believe the proposed usages of Building 11 to be ideal, a revised proforma must be drafted to analyze the expected supportable debt. Without restated opinions of cost, delivering accurate estimates to our potential investors has thus far been difficult, if not practically impossible; for more on this crucial point, please see the subsequent **STUDY & ANALYSIS OF EXISTING CONDITIONS** section of this document.

In the absence of a recent proforma, we must rely upon the available feasibility studies, which, as stated earlier, are rife with obsolete data and based upon a more ambitious Phase 1. Nevertheless, as the estimated construction costs in both the 2005 and 2008 studies vastly exceed the amount of supportable debt, we again have come to the conclusion that new studies must be conducted, ideally taking into account the modified phases outlined herein. We also believe that our dedication to various green and sustainable architectural designs will open new avenues of grant acquisition and foundational financing that have yet to be fully explored.

Currently, the return on investment of a redevelopment project limited to Building 11 is insufficient to gain the financial commitment of our investors (though this may be subject to change with revised opinions of cost). We do, however, believe that there is potential for significant profits through the successful completion of Phase 2. This second phase will roughly include the following:

- renovating the foot bridge for increased pedestrian access;
- creating ~60,000 sf of additional commercial and light industrial space in Buildings 1 and 4;
- transitioning Building 11 to primarily residential and live/work usage and increasing the building's annual expected rental income;
- defining a commercial "avenue" along the upper, outer walkway of Building 4, directly accessible from the base of the restored pedestrian bridge;
- attracting high-yield businesses reliant upon increased pedestrian access, such as restaurants, bars, cafes, and theaters; and
- adding additional parking adjacent to or within the Segment II structures.

Phases 3 and 4, representing the second half of Development Segment II and the entirety of Segment III, are currently outside the scope of this document given the multitude of issues obstructing the first two development stages. However, we have discussed many possibilities, including but not limited to light industry (specifically green technologies), sound stages for film and television production, museums or large gallery spaces, new media centers, additional residential units, and supplemental community, event, and educational spaces.

Thus, we present the following basic plan of action for redevelopment of the Strathmore Mill:

1. Conduct a thorough environmental review of the entire Strathmore Mill facility.
2. Conduct further structural, civil engineering, and market analyses.
3. Use the updated research to draft new development plans and proformas for Phases 1 and 2 outlined above.
4. Secure financing for Phase 1 renovations and initiate construction.
5. Resolve crucial access issues (namely renovating the pedestrian bridge, securing on- and off-site parking, and developing expanded vehicular traffic routes) in preparation for Phase 2 redevelopment.
6. Secure financing for Phase 2 renovations and initiate construction.

As we will outline in the following section of this document, the first step – a concerted research period – must be concluded before we may proceed further in any sensible way.

STUDY & ANALYSIS OF EXISTING CONDITIONS

Despite our enthusiasm for the Mill's renovation, we remain cautious. Based on our concerns and those of various consultants, we feel the eligibility requirements outlined in the Town's Request For Proposals are premature and overly optimistic. We have divided our investigations into four main categories: environmental conditions, structural engineering, civil engineering, and market analysis.

Environmental Conditions

According to conversations with several professionals with whom we've been consulting, the Tighe & Bond analysis from 2005 is in all likelihood an inadequate resource on which to base the renovation of the Strathmore Mill. Tighe & Bond's hazardous materials survey admits forthrightly that it is "limited in scope", and it is stated within the document itself that an intrusive survey would be recommended. Additionally, it has also come to our attention that the Phase I ESA previously completed for the property is out of date and will need to be renewed prior to securing financing from any lending institution. As the Town has been the steward for this property over the last several years, it should be sympathetic to the sheer amount of risk associated with such a procurement and renovation.

These professionals have recommended that a renewed, robust survey of the entire property be completed before any other feasibility studies and/or negotiations with the town take place. This supplemental environmental assessment should include, but not be limited to:

- inspecting potential oil leakages in the boiler room as well as investigating the potential lack of process line inspection and drainage/recovery;
- performing a comprehensive inspection for asbestos and other hazardous materials that would include limited destructive methods to inspect "hidden" areas such as wall cavities, areas below hardwood flooring, roofing materials, foundations, etc.;
- performing an inspection for the possible presence of PCBs in window glazing and frame caulk, or in other materials if deemed necessary;
- determining any requirements that the Historical Society, or similar type of agency, may require regarding reuse of certain building materials where lead or other hazards may be present;
- soil boring in non-targeted locations topographically and hydrogeologically upgradient of the Mill complex; and,
- throroughly reviewing the areas surrounding and containing debris from Building 10, as well as the soil below, for evaluation of asbestos in soil, PCBs, dioxins, etc.

In addition to the remediation of exposed asbestos, as documented in the Tighe & Bond survey among others, we believe all interior exposed brick and wood surfaces will require sandblasting to remove coatings that may contain lead paint and other contaminants. The cost of this process has yet to be properly assessed or documented.

Flight Patterns believes that addressing all of these environmental concerns are tantamount. Without a thorough Hazardous Materials Survey, updated Phase I ESA, Supplemental Phase II ESA, and potentially a Property Condition Assessment in hand, it has been impossible to estimate these potential environmental remediation costs for our investors. As such, these deficiencies and their corresponding risk are directly impacting our ability to secure financial assistance.

Through our research process, we have identified a qualified environmental consulting firm with adequate resources and relationships to help move this project forward. Should we be able to secure funding for these crucial assessments and be granted the opportunity to perform them by the Town, we plan to retain ENVIRON International Corporation as part of our development team. A statement of qualifications for the real estate services that they provide is included as ***Appendix D***. Additionally, we have included the resumes of two of the representatives that were present with Flight Patterns at the Strathmore Mill Developer Conference and site walkthrough on December 13th, 2012 (see ***Appendix A***).

Structural Engineering

Our proposed Phase 1 redevelopment of Building 11 faces multiple building and construction hurdles. The available feasibility assessments are extremely out of date; for example, construction material costs are drastically more expensive than they were in 2008, the year of the most recent *Site Development Assessment* conducted by Fuss & O'Neill. Additionally, significant reconstruction efforts will be required to bring the structure up to code. Currently, much of the building lacks a secondary egress, and the existing stairwell in the rear of the building fails to comply – in both width and grade – with current code regulations. Our construction consultants, Tocci Building Companies (see ***Appendix E***), have proposed adding external stair and elevator wells to the structure, but these costs have yet to be properly assessed in any of the available literature. Lastly, in the near term, access to utilities will be potentially complicated and/or hampered by relying upon the existing lines slung under the condemned pedestrian bridge.

Furthermore, during the Building 11 redevelopment, we intend to comply with LEED certification guidelines as much as possible. According to Tocci, seeking full LEED certification may be cost-prohibitive (if not practically impossible) in a traditional brick and beam structure like the Strathmore. They have nonetheless suggested various techniques that may be implemented to both prevent further deterioration and decrease the energy costs of the

final redeveloped property. For example, breathable sealers can be applied to exposed brick walls and insulated glass can be used to replace existing windows. The costs of these and other desired structural improvements, from solar panels to green roofing and greywater systems, are yet to be determined. We will also likely require the services of a historic preservation consultant to ensure that said improvements will not jeopardize our chances of receiving historic tax credits.

Although our initial Phase 1 plans focus strictly on Building 11, we have spent a considerable amount of time investigating the rest of the property with future phases in mind. We, along with our consultants Tocci Building Companies, have itemized several key areas of concern, including:

- The pedestrian bridge ownership issues have yet to be resolved, and without proper rehabilitation prevent direct access to much of the site.
- The parging along the rear elevation of Buildings 2 and 3 may be concealing considerable damage. This technique was typically used as a band-aid for an already deteriorated façade. Unfortunately, parging often exacerbates existing issues by holding moisture in against the brick, causing further unseen erosion. This issue alone could prevent successful redevelopment of the Town's proposed Development Segment II, and at minimum must be properly assessed before any transfer of ownership may be discussed.
- Visible cracking exists throughout the facility's façades, requiring major repointing.
- Nearly all of the roofs, including Building 11, will need to be replaced in the short to medium term, adding to upfront costs and concerns.

Further analysis beyond the scope of available structural assessments will absolutely be required before an accurate estimate of building costs can be ascertained and presented to our investors.

Civil Engineering

Our site assessment consultants, Fuss & O'Neill (see ***Appendix F***), have been and will continue to be essential partners in determining the feasibility of our proposal. Their 2008 *Strathmore Mill Site Development Assessment* and 2011 *Strathmore Mill Traffic Options Study* have already been vital resources during our investigations. However, the passage of time has rendered many of the details in these documents obsolete. We believe both studies require thorough updating as part of our overall research period.

The 2008 *Site Development Assessment* provides detailed construction cost analyses for a Phase 1 redevelopment consisting of Buildings 1, 4, and 11. However, as stated earlier, the cost of building materials has increased significantly in the five years since this study was conducted. Further, the opinions of cost need to be updated with our vision of sustainable building techniques in mind. A revised site assessment must also, importantly, include a new operating budget and development program that takes into account a significantly changed initial development phase. We must reassess the expected yearly net income of an occupied Building 11 based upon current market conditions and weighed against revised construction and maintenance expenses.

Access issues remain a predominant roadblock to the Strathmore's rehabilitation. Although the *Strathmore Mill Traffic Options Study* makes several proposals for automotive access, all are contingent upon utilizing both the private Indeck Property's roadway as well as the nearby bridge currently owned by First Light Power. Although Fuss & O'Neill's 2008 assessment recommends two thorough plans for renovating and raising the pedestrian bridge, the additional costs as well as the continued ownership issues between the Town and First Light have made restoring the bridge a tricky proposition both logistically and financially. These impediments have continued to make our investors leery of committing funds to the Mill's rehabilitation at this time.

With a concerted site reassessment conducted by Fuss & O'Neill, we believe we will be able to solve these access issues one step at a time. Some proposals that have arisen during our discussions with Fuss & O'Neill include:

- reassessing the location of a traffic ramp leading behind Building 11;
- expanded parking in the area previously occupied by Building 10;
- investigating the possibility of additional parking within Buildings 1 and 4; and
- utilizing the Indeck Property for the construction of a parking lot and/or garage.

Funding for this project will likely remain elusive until these issues are more clearly studied from a 2013 perspective.

Market Analysis

The Town has provided the *Market Assessment: Artist Live-Work Space* study, conducted by Abramson & Associates in 2009, as the most recent resource for determining market feasibility of a redeveloped Strathmore Mill. As with the other available studies, we have found the information therein to be sadly outdated and slightly off-base for our proposed project vision. Our preliminary investigations, however, indicate a palpable need for affordable live-work, gallery, and residential loft spaces in Turners Falls. The current social climate is extraordinarily receptive to green community development programs, leading us to conclude that market conditions will be more than adequate to support our proposed Eco-Center. Lastly, we are optimistic that the continued upward trend in the local and national real estate markets since 2009 lends credence to a more optimistic appraisal of the Strathmore's renovation than previously documented.

Given the immediate need for the environmental and structural reassessments outlined earlier, we feel that further market investigations are, for the moment, premature. Should more pressing assessments render the Strathmore renovation feasible, we believe that RKG Associates Inc. will be excellent candidates for the task of assessing the Eco-Center's viability in the present market.

FINANCIAL COMMITMENT & QUALIFICATIONS

Over the past year, Flight Patterns has been courting several foundations and private investors that share our excitement and vision for the creation of the Eco Center. At present time, we are unable to publically disclose any formal financial commitments to the Strathmore site, due to the multiple issues already outlined above. However, despite the property's inherent complications we continue to believe that the site, and surrounding village of Turners Falls, have tremendous potential. Should the RFP be extended or revised – or should the Town take interest in renewed feasibility studies – Flight Patterns will enthusiastically continue working toward the redevelopment of this majestic landmark (see ***Appendix A*** for our resumes and ***Appendix B*** for references).

CONSTRUCTION EFFORTS & PROGRESS REPORTS

Our varied years of property and project management experience will ensure a smooth coordination of design and construction schedules following renewed feasibility studies. Progress meetings with Town Officials, meetings with adjacent property owners, meetings with members of the community, and any supplemental meetings suggested by the Town are understandably of utmost importance. Our small, highly organized team enthusiastically looks forward to all future discussions and collaborations with the Town and its representatives.

PROPOSED SCOPE OF WORK & COST ESTIMATION

Deficiencies in the available site research currently prevent the formulation of any statements of proposed work. In the immediate term, we must focus on amending and supplementing the available feasibility studies; we may then draft robust investment and business proposals using up-to-date analytics.

We have detailed the costs of our proposed research, estimated to be between $40,000 and $80,000, in the attached ***Appendix C***. The variance between minimum and maximum estimated expenditures is due almost entirely to unknown factors surrounding the environmental surveys. A reasonable worst-case scenario would involve a moderate supplemental survey predicated on a thorough review of existing reports (likely in the neighborhood of $20,000 total). However, should a full-blown assessment be necessary after a thorough desktop review and Phase I ESA, a new haz-mat survey of the entire site, potentially doubling the estimated costs, may indeed be required.

Providing an "accurate, thorough and dependable cost estimate" of the Mill's actual redevelopment is thus out of the scope of this response, and directly subject to the completion of our proposed reassessments. Financing these studies at the present time represents an unsuitable financial risk, given not only the complexities of the site, but also the distinct possibility of competition from other development entities.

Should the Town be amenable to a renewed research period as we have outlined, we propose negotiating exclusive access to the site, for a set period of time, given solely to Flight Patterns LLC and its consultants.

CONCLUSION

The ten buildings that make up the Strathmore Mill have, for some time, been falling further and further into disrepair. Their current condition speaks to the immediacy with which a redevelopment project is needed. Taking these time constraints into account, we fear that any rehabilitation plan which attempts to bypass a new, thorough, up-to-date examination of the Mill's underlying conditions is not only destined for failure, but will quite possibly use up the remaining precious time available to save this historic landmark.

After a full year of in-depth investigation into the redevelopment of the Strathmore Mill, we remain enthusiastic and optimistic. Our unique, specialized team is armed with the resources, tools, and excitement required to follow through on a project of this scope and magnitude. Though further research into the current environmental, structural, and civil engineering components must first be conducted, we believe strongly that the Flight Patterns Eco-Center represents a viable and tangible rehabilitation solution.

APPENDIX A: RESUMES

Flight Patterns LLC
Flight Patterns LLC is a young collective of creative professionals seeking to build and enhance communities through art, commerce, environmental activism, eco-tourism, and sustainable living.

Benjamin J. Warshaw
Authorized Member, Flight Patterns LLC
Benjamin "BJ" Warshaw is a computer programmer, musician, and artist. He graduated with a Bachelor of Arts from Tufts University in Somerville, Massachusetts before relocating to New York City. At the turn of the century, he helped renovate a former industrial space, located in the Williamsburg neighborhood of Brooklyn, in which he continued to live and work through 2009. He has assisted in converting several underutilized warehouses into musicians' rehearsal studios and event spaces throughout Brooklyn. As a founding member of the band Parts & Labor, BJ has performed in nearly every conceivable musical environment, from warehouse galleries to massive international festival stages. He has booked and promoted numerous national and international tours, countless events in New York City, and several festivals. As a professional web developer, BJ has fulfilled lead design and programming duties for clients as diverse as the Museum of Modern Art, The New School, Nintendo, and JetBlue.

Marie E. Rossettie
Authorized Member, Flight Patterns LLC
Marie has a long history with property repair and management. During and after college she was employed for several years under a contractor in the Five College Area, renovating student housing and dilapidated rental properties. For more than a decade she has been the superintendent for her family's rental homes, ensuring that the houses are occupied and well kept. In her professional career, Marie has worked as both a Project Manager and an Art Director in Pharmaceutical Marketing, and more recently, managed the Medical Arts Department for five New York City Hospitals. Her years of experience meeting with clients, initiating business contracts, and seeing projects from inception through completion translates well to all fields. She is currently self employed as a full time medical illustrator and fine artist.

Joel T. Roston
Authorized Member, Flight Patterns LLC
Longtime member of both the Brooklyn, NY and Boston, MA creative arts scenes, Joel has spent years founding and performing musical ensembles of all kinds. He has brought his compositions and performances to venues across the world, from NYC's Lincoln Center and London's Barbican Center to the smoky basements of DIY cooperatives across America. Joel studied classical guitar performance at the Hartt School and has since extended those skills into writing music for television, film, and ensemble performance. Joel's fondness for large-scale community-based creative projects brought him to Flight Patterns, where he hopes to contribute his clear communication style and problem solving acumen to building a sustainable space for art and music in New England. He currently lives in Boston, MA.

ADDITIONAL RESUMES

The following people attended the Strathmore Mill Developer Conference and site walkthrough, with members of Flight Patterns, LLC, on December 13th, 2012.

Steven F. Fecht
ENVIRON International Corporation
Steven F. Fecht has 10 years of experience conducting site assessment, environmental investigation and remediation activities at non-hazardous and hazardous waste sites in accordance with several state and federal regulatory agencies. Steven's experience includes contaminant source delineation and characterization (soil, overburden

groundwater, bedrock groundwater, freshwater sediments, marine sediments); overburden and bedrock groundwater investigation; evaluation of soil vapor intrusion and abatement measures; evaluation of contaminant persistence and migration; evaluation of risk of harm to human health and the environment; development of conceptual site models (CSMs); light non-aqueous phase liquid (LNAPL) and dense non-aqueous phase liquid (DNAPL) site characterization; litigation and insurance support; and design, evaluation and implementation of remediation technologies and programs. He earned a BS in biology from Eastern Oregon University and a BS in environmental science from Eastern Oregon University.

Jennifer L. Archacki
ENVIRON International Corporation
Jennifer Archacki has more than 20 years of experience in building science technology with emphasis in asbestos, lead and other hazardous building materials consulting services. She has performed and managed building inspections in support of due diligence, renovation and demolition activities. She has developed technical specifications for abatement of asbestos-containing materials, as well as the removal of regulated building materials and lead paint considerations during construction. She has served numerous high-profile clients, including hospitals, developers, research facilities, local government agencies and universities. She has also provided asbestos litigation support services and Phase I environmental site assessments in accordance with ASTM standards. Jennifer is currently certified by the Massachusetts Division of Occupational Safety (DOS) as an asbestos inspector, management planner and project designer. She is also certified by the US Green Building Certification Institute as a LEED Green Associate, and holds a BS in environmental science from Allegheny College.

Valentino Tocci
Tocci Building Companies
Valentino Tocci ("VJ") has a graduate degree in Architecture in Historic Preservation. He has been a specialist in restoring antique architecture since 1992 and has worked on museum level architecture such as Mount Vernon (George Washington's home), the Octagon Museum (Washington DC), the Lars Anderson House (Washington, DC), as well as prominent institutional buildings such as the Massachusetts State House, the John Adams Superior Courthouse (Boston, MA) and has utilized this combination of experience and education in adaptive re-use of mill buildings. Ancient buildings contain surprises that often don't materialize until construction is well underway. Being prepared for these invisible occurrences and having an aptitude towards seeing solutions that resolve the issue, while maximizing their architectural contributions is a knack of VJ's.

Eric M. Bernardin, PE, LEED AP
Fuss & O'Neill
Mr. Bernardin is a Senior Associate in the West Springfield office and is responsible for the planning and design effort on the firm's Development Services projects. Eric has been providing sustainable and enduring site solutions for over 25 years. He excels at directing complicated design and permitting projects such as: roadways, building additions and renovations, sanitary facilities design, stormwater management, planning assessments for infrastructure improvements, and site development. Additionally, his experience in construction ensures the economic practicality and constructability of his designs. His principal strength is communicating effectively with other members of the design team, permitting authorities, and foremost the client.

Daniel F. DeLany, PE
Fuss & O'Neill
Mr. DeLany is a Project Manager with Fuss & O'Neill who has experience working on all facets of site planning and engineering. His background includes design and management of large multi-disciplinary civil engineering and site planning projects. Mr. DeLany has experience with services ranging from site layout and grading to utility and stormwater analysis and design. Mr. DeLany is experienced in local, state and federal regulatory and permitting processes including the Massachusetts Wetlands Protection Act, MEPA, and US Army Corps of Engineers permitting, and has designed and managed projects through all stages of regulatory review.

APPENDIX B: REFERENCES

References were submitted to the Town for private consideration.

APPENDIX C: PROPOSED RESEARCH AND BUDGET ESTIMATIONS

I. ENVIRONMENTAL ASSESSMENT
estimated cost: $12,000 - $50,000

- Conduct a detailed desktop review of all previous environmentally related reports ($3,800 - $4,500)
- Complete an ASTM Phase I ESA, meeting requirements of the EPA's "AAI standard" ($4,500 - $5,500)
- Review of existing hazardous materials reports, site inspection and follow-up supplemental hazardous materials and regulated materials survey ($3,500 for site visit and opinion only; $5,500 for limited supplemental survey; $13,000 for moderate supplemental survey; $40,000 for a new, complete haz-mat survey of the entire site)

II. STRUCTURAL ASSESSMENT
estimated cost: $5,000

- Conduct a full document review of the entire Strathmore Mill site
- Full site visit including load assessment as well a structural assessment emphasizing problem areas
- Provide estimates for probable necessary work for building code compliance

III. SITE DEVELOPMENT ASSESSMENT
estimated cost: $8,000 - $10,000

- Update previous Fuss & O'Neill studies: Site Development Assessment (2008) and Traffic Options Study (2011)
- Includes construction materials and labor costs for proposed phases of Mill redevelopment
- Full utilities investigations, as well as cost analyses for pedestrian bridge restoration
- Review permitting strategies, adaptive re-use options, and ramifications of sustainable building techniques against historic tax credit opportunities

IV. MARKET FEASIBILITY EVALUATION
estimated cost: $15,000

- Summary of general local market conditions and prospects
- Survey of regional trends and local inventory of existing and planned space uses
- Full fledged market analysis of proposed Eco-Center, suitable for inclusion in financing proposals

TOTAL ESTIMATED COST: $40,000 - $80,000

APPENDIX D: ENVIRON INTERNATIONAL CORPORATION – REAL ESTATE SERVICES

Real Estate Services

Presented to:
BJ Warshaw and Marie Rossettie

Presented By:
ENVIRON International Corporation

www.environcorp.com

Contents

About ENVIRON

An international consultancy, ENVIRON works with clients to help resolve their most demanding environmental and human health issues. We combine resources across geographic boundaries and technical and scientific disciplines to provide clients with the best, most responsive team—whether responding to existing challenges, evaluating opportunities to improve performance, or seeking to reduce future liabilities. Clients around the world benefit from our unique ability to bring clarity to issues at the intersection of science, business and policy.

Since ENVIRON's inception over 25 years ago, we have successfully pursued a core mission of applying the highest level of technical and strategic expertise to our clients' most critical environmental and human health issues. In response to the increasing complexity of these issues, we have continuously extended our capabilities and geographic reach, evolving into a truly global partnership with more than 1,200 professionals working from a network of more than 75 offices across the Americas, Europe, Australia and the Asia-Pacific region.

ENVIRON's vibrant and collaborative work environment has helped us to attract—and retain—many of the world's top consultants. We have created a seamless worldwide network of professionals who provide clients strategic and technical support in the following areas:

Air Quality Management
Applied Epidemiology
Building Technology Services
Center for Exposure Reconstruction & Analysis
Climate Change & Energy Management
Compliance Assistance
Corporate Responsibility
Ecology & Sediment Management
Energy & Environmental Technology
EHS Information Management
Integrated Industrial Wastewater Management
Merger & Acquisition Due Diligence
Nanotechnology
Occupational Health Sciences
Product Safety & Regulatory Support
REACH
Risk Assessment & Risk Management
Site Solutions
Sustainability Services
Technical Support for Litigation
Waste Management

EHS Management
Environmental Impact Assessment & Planning
Industrial Chemical Safety
Industrial Hygiene & Safety
Water Quality Management
WEEE, RoHS & Eco-Design

Responsiveness, Flexibility, Service, and Quality

ENVIRON recognizes that real estate work requires a rapid response, a flexible approach to project demands and a tailored application of resources to client requirements, budget and schedule. Our client-focused culture positions us well to respond to the unique demands of this work, with experts who apply cutting-edge technologies and innovative strategies to maintain fast-track schedules and minimize costs. We routinely assign a single point of contact as the Project Manager, who has the necessary authority and responsibility to direct resources and achieve project goals. This individual is backed by a Principal, who can apply the full resources of the firm, provide appropriate quality control/quality assurance and help ensure client satisfaction. We use standardized procedures and document templates promote efficiency and consistency in work products. Our subcontractors are pre-qualified, meet a high standard of health and safety performance, and must provide insurance to project-determined amounts. All of these protocols result in a superior level of client service and produce technical deliverables which surmount regulatory hurdles the very first time. Quality is the hallmark of the ENVIRON way of doing business.

Breadth of Real Estate Experience

ENVIRON has provided turnkey consulting services to developers, brokers, property owners and managers, retailers, equity firms and banks, insurance firms, institutions, attorneys, architects and engineers around the world. We have vast experience conducting environmental due diligence, including ASTM Phase I and II environmental site assessments, property condition assessments, and pre-demolition surveys for EPA Regulated Materials (fluorescent lights, batteries, coolants, etc), permitting, remedial investigations, feasibility studies, design engineering and construction management. ENVIRON also offers a full range of building demolition and rehabilitation support services including asbestos and lead-based paint surveys and abatement, indoor air quality, mold testing and remediation, energy audits, and green building evaluations.

In the sections that follow, we further describe our qualifications and experience.

Real Estate Services

Environmental Due Diligence

ENVIRON understands the importance of minimizing risk through reliable environmental due diligence. Each year, we conduct hundreds of regulatory compliance audits and diligence assessments and have earned a national reputation for timely and thorough reports.

While many sites are found to be free of environmental problems, when a potential environmental or engineering issue is discovered, our scientific expertise and engineering experience provides common sense solutions.

Environmental site assessments (ESAs) vary widely in scope. Depending upon your needs, the study could fully or partially comply with the American Society of Testing and Materials (ASTM) site assessment standards #E-1527-05.

An environmental site assessment may be conducted by a single experienced staff member or by a large interdisciplinary team of professionals. This staff member or team of experts evaluates the site and its history. The team may include geologists, hydrogeologists, biologists, chemists, engineers, risk assessors, and regulatory specialists, lead by a Project Manager who serves as the primary client contact.

When buying, selling or preparing a property for development, it is critical to complete a thorough environmental due diligence to uncover potential financial, legal and environmental liabilities.

Past or present hazardous or solid waste sites, USTs and other features can be quickly mapped

Phase I Environmental Site Assessments

The first step in conducting due diligence is usually a Phase I ESA, during which a site walk-through examines potential environmental problems such as stained soils, abandoned drums, improper handling of hazardous substances, vent or fill pipes indicating the presence of underground storage tanks or evidence of pesticide use. We review aerial photographs, regulatory records and public documents on the site's historical uses and past owners, occupants and employees. Public records are searched and background information is collected on local geology, hydrogeology and water use. We also perform a reconnaissance of neighboring properties to identify potential sources of off-site contamination.

If the data collected during a Phase I study indicate potential problems, we will recommend targeted soil, groundwater or other media sampling to characterize the condition of the property and develop a plan to resolve the problem.

Phase II Environmental Site Assessments

The major objective of a Phase II ESA is to verify the absence of or, if needed, identify the nature and extent of possible environmental concerns. Such concerns could result from past or present operating practices at the site, land uses prior to development or migration of chemicals onto the site from neighboring properties. The Phase II ESA generally involves a focused soil, soil-gas, indoor air quality and/or groundwater sampling and analysis program. ENVIRON selects sampling techniques and chemical analysis methods based on information obtained throughout the Phase I assessment, including site geology, hydrogeology and the nature of the suspected concern.

A Phase II report summarizes and interprets sampling and analytical results. The Phase II report evaluates the significance of hazardous substances occurrence on site. If environmentally significant concentrations of hazardous substances are detected in the Phase II sampling program, ENVIRON typically prepares a separate letter, giving options and recommendations for follow-up activities (further investigation or cleanup).

Permitting, Risk Assessment, and Design

If the Phase II ESA indicates that further work is required to reach an environmental No Further Action endpoint or otherwise achieve environmental compliance, then ENVIRON can undertake the next steps to achieve these outcomes. We are well recognized for our ability to rapidly obtain permit applications needed to implement environmental cleanup programs. If a risk assessment is needed to characterize the fate, transport and impact of chemicals or other constituents of concern, then our nationally known risk assessors and modeling experts in soil, groundwater and air can provide expert opinions which persuade regulators to grant approvals. Should design of remedial alternatives be necessary, our engineers and supporting disciplines can furnish technical bid specifications and drawings which can be issued to bidders for cost-effective field solutions.

Regulatory Compliance Assistance

ENVIRON has assisted numerous commercial and industrial clients with various aspects of environmental, health and safety regulatory compliance. These services include:

- **Identifying Regulatory Requirements:** ENVIRON helps clients, in some cases prior to start-up, identify EHS regulatory requirements that would be applicable to the client operations and activities. This helps the client plan for and put in place any EHS programs necessary to comply with the regulatory requirements.
- **Regulatory Compliance Audits:** ENVIRON performs EHS regulatory compliance audits of client operations to determine if those operations are being performed in compliance with EHS regulatory requirements.
- **Corrective Action for Non-Compliance Findings:** ENVIRON can help clients develop and implement corrective actions related to any non-compliance findings identified during audits.

- **Training Programs:** ENVIRON can coordinate and conduct EHS-related training for client employees.
- **On-Site EHS Assistance:** ENVIRON can provide qualified EHS professionals to assist in day-to-day EHS regulatory compliance at the client site.

Asbestos Management

ENVIRON is well recognized in the field of asbestos consulting and management, assisting clients in making safe and cost effective decisions concerning actual and/or potential asbestos exposure problems. With nearly 100 employees specializing in industrial hygiene services located in offices across the country, ENVIRON specializes in time-sensitive, multi-site projects and is well versed in project survey and management work.

Our staff has a wealth of experience in all aspects of asbestos management services. ENVIRON personnel have performed thousands of building surveys for asbestos and other toxic materials, including USEPA Regulated Materials (Universal Waste). The range of facilities surveyed includes high-rise buildings, financial institutions, shopping centers, commercial warehouses, motel chains and educational facilities. In addition, ENVIRON staff have written hundreds of technical specifications for asbestos abatement and Regulated Materials removal projects and have monitored and implemented asbestos abatement at sites nationwide.

ENVIRON presents an approach to asbestos management services that allows the client to manage all known asbestos-containing materials (ACM) within its facilities and which addresses the owner's liability in a thorough and efficient manner.

- **Building Materials Survey:** Identifying ACM and their location, condition and quantity and providing recommendations and costs for remediation, including for building surfaces and roofs.
- **Operations and Maintenance Program:** Minimizing exposure risk through training of maintenance personnel, performing operations and maintenance (O&M) procedures and continuing condition assessments and air testing.
- **Asbestos Abatement Specification Design:** Developing remedial procedures including removing, repairing, enclosing or encapsulating ACM and assisting in bid administration.
- **Project Monitoring and Turnkey Execution:** Supervising remedial activities including pre and post abatement containment inspections, sampling and analyzing ambient air, monitoring for removal practices, testing for air clearance and documenting the entire abatement process. ENVIRON can also implement the abatement work directly in the capacity of a general contractor, depending upon state regulations, using qualified subcontractors.

Lead-Based Paint and Dry Wall Management

ENVIRON's hazard control approach and project management for lead-based and dry wall projects minimizes the impact to human health and the environment.

ENVIRON is a leader in lead-based paint and dry wall hazard identification, risk assessment, hazard control and remediation design. We provide lead-based paint management services in compliance with USEPA regulations, Occupational Safety and Health Administration (OSHA) regulations and Housing and Urban Development (HUD) guidelines in commercial, residential and industrial environments. In Florida, we provide the largest consulting and litigation support practice for the off-specification dry wall problems which emerged in residential and some commercial properties in recent years. Our staff of certified inspectors, risk assessors, project designers and project monitors are well versed in federal regulations and state and local agency requirements regulating dry wall and lead-based paint, as well as lead in water, soil, air and dust.

ENVIRON also provides lead-based paint management services to housing authorities, school districts, daycare centers, industrial facilities, property management firms, lenders and private homeowners.

ENVIRON's lead-based paint management services allow the client to control exposure to lead through a variety of safe methods ranging from interim controls to full abatement.

- **Lead Hazard Evaluation:** Lead inspections are performed by certified inspectors using portable x-ray fluorescence (XRF) equipment with paint chip sample collection. Laboratory sample analyses are conducted to identify levels of lead in paint. Certified risk assessors determine risk using visual inspection and soil, water and dust wipe sample collection and analysis to assess levels of lead in dust.
- **Consultation and Project Design:** ENVIRON staff review lead inspection results and recommend appropriate strategies for hazard control. Specifications stating safe methods of cleanup or abatement of lead hazards are developed by certified project designers, who also conduct project cost estimation and bid administration.

- **Project Monitoring and Execution:** ENVIRON staff monitor projects at all levels including abatement contractor submittal review, pre-abatement containment inspections, daily monitoring of work in progress, post-abatement work area inspections, wipe clearance sample collection and analysis, and complete project documentation of all abatement services. ENVIRON can also implement the abatement work directly in the capacity of a general contractor, depending upon state regulations.
- **Operation & Maintenance (O&M) Programs:** ENVIRON's services include hazard control through training of maintenance personnel, O&M procedures and continual condition assessment using testing and inspection services.

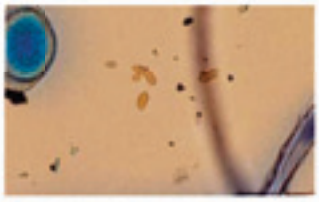
- **Laboratory Analytical Services:** ENVIRON contracts with American Industrial Hygiene Association (AIHA) accredited laboratories to provide air, water, soil and paint chip analysis. Waste characterization sample analyses are performed by contracted National Voluntary Laboratory Accreditation Program (NVLAP) and Environmental Laboratory Approval Program (ELAP) accredited laboratory facilities.

Indoor Air Quality and Mold Management

The present quality of an indoor air environment and how it may change are matters of immediate and great concern to building owners, managers, employees and tenants. Satisfactory indoor air quality (IAQ) is essential in maintaining building occupant comfort. ENVIRON provides the following IAQ services.

- **HVAC Systems Evaluations:** IAQ problems are most often associated with heating, ventilation and air conditioning (HVAC) system deficiencies. These deficiencies can occur in the design, installation, maintenance and operation of the HVAC systems. ENVIRON's HVAC inspections include evaluating the condition and maintenance of ventilation system components, operation of the air intake system, effectiveness of the air delivery system in occupied spaces and the entrainment and infiltration potential of contamination that can enter the building from a wide variety of sources.
- **Diagnostic IAQ Evaluations:** ENVIRON conducts diagnostic IAQ evaluations by reviewing each building's ventilation system design and operating procedures. In addition, the HVAC system's preventive maintenance program is evaluated and the condition of system components—including air filters, condensate drain pans, cooling coils and distribution mechanisms—is inspected. We also perform direct-reading measurements of general indoor air quality parameters including carbon dioxide, temperature and relative humidity.
- **Air Contaminant IAQ Testing:** If an IAQ evaluation reveals active or potential contaminant sources, we can conduct additional air sampling and analysis to determine the extent of impact to the indoor environment. An IAQ sampling evaluation is also a critical tool in determining if suspected sources are negatively affecting indoor air quality. ENVIRON has performed customized IAQ sampling evaluations for a variety of air contaminants including volatile organic compounds, formaldehyde and airborne dusts, as well as pesticides and combustion products.
- **Microbial Sampling and Moisture Intrusion Evaluations:** ENVIRON has conducted microbial investigation and water intrusion evaluations at a wide variety of

Poor indoor air quality can waste resources, incur legal complaints, reduce worker productivity, increase absenteeism and even create long-term health problems. A preventative and proactive maintenance program is a good investment. Should mold growth and indoor air quality problems occur, a thorough site investigation can quickly identify and resolve the problem.



locations including industrial facilities and residential and commercial office properties. Microbial contamination can result in building occupant complaints ranging from general malaise to respiratory illness and infection, especially among individuals with compromised immune systems. Fungal and bacterial proliferation may occur in buildings with excessive moisture in construction materials, carpeting, ceiling tiles or within an HVAC system. ENVIRON inspects for microbial amplification sources such as humidifiers, ineffective vapor barriers, condensation units, HVAC and building systems and water damaged areas. We can sample these sources using state-of-the-art methodologies to determine the concentration and species of bio-aerosols.

- **Remediation Design and Project Oversight:** ENVIRON develops remediation protocols, project plans (engineering drawings) and specifications to eliminate microbial contamination and prevent future occurrences. In addition, we monitor the performance of the environmental contractor, conduct post-remediation validation testing to document that remediation efforts were thorough and effective, and assist with reconstruction activities. We also assist clients with establishing proactive procedures to minimize or eliminate future IAQ impacts. ENVIRON has helped clients develop and implement a variety of HVAC preventive maintenance protocols, routine building inspections, energy audits and evaluations and moisture mitigation programs.

Vapor Intrusion Mitigation

ENVIRON's experience investigating indoor air quality extends to the evaluation of vapor intrusion associated with underlying soil and groundwater contamination, and includes mitigation strategies that are innovative, cost-effective, consistent with the current regulatory climate and protective of human health. ENVIRON draws upon its engineers, soil chemists, environmental scientists, industrial hygienists, risk assessors and toxicologists to provide comprehensive solutions to vapor intrusion issues from the site investigation stage through the development of vapor mitigation approaches. Our specific areas of expertise include the following.

- Vapor Intrusion Investigations
- Risk Assessment
- Vapor Mitigation System (VMS) Design and Implementation Oversight

When engineering a VMS, ENVIRON considers ultimate site risk-reduction goals, risk management during implementation, management of long-term risk and future liabilities, and the short- and long-term costs associated with the design implementation. Although a number of designs may satisfy regulatory requirements, each has its short- and long-term costs, and the most commonly deployed solutions may, in the long run, be less beneficial depending upon site-specific factors and client-specific objectives. For example, ENVIRON has often found it more appropriate to

design and install vapor mitigation systems that rely upon sub-slab ventilation instead of the more commonly used systems that rely upon sub-slab depressurization.

When installing a sub-slab ventilation or depressurization system is not feasible or practical, ENVIRON has used alternative vapor mitigation methods, including modification of heating, ventilation and air-conditioning systems, sealing, room pressurization, and/or vapor barriers when the effectiveness of the alternative mitigation method can be documented and maintained over the long-term. Because actions taken to mitigate exposures related to vapor intrusion (e.g., sealing basement cracks, installing a sub-slab depressurization system, etc.) are not intended to reduce subsurface vapor concentrations, we often consider supplementing the VMS through remediation of the source of the vapors (either directly or indirectly) using soil vapor extraction (SVE). In designing the SVE systems, we ensure that the capture radius of an SVE system is sufficiently extensive.

As a component of its overall services, ENVIRON provides construction management for VMS implementation. Because we are neither owned by nor affiliated with any construction contractors, we act as an independent agent representing the interests of our client throughout the VMS implementation process. We provide professional management and project oversight throughout the field construction phases of the project, assisting in the preparation of specifications and construction bid documents, reviewing bid proposals and assuring compliance with project specifications, budget and schedule requirements. Following construction, ENVIRON can provide system testing services, optimize system operation and ensure proper operation and maintenance of the VMS.

Architectural and Engineering Services

ENVIRON is routinely called upon to investigate a problem, determine the cause, develop an appropriate repair, prepare construction documents and assist with the bidding and implementation of the repair. Building enclosure problems range from water intrusion through components of new or renovated buildings to identification of design details or construction materials that pose potential building failure or environmental issues, such as mold.

Trained and experienced in sustainability and green building, our LEED and Green Globes accredited professionals assist clients in the evaluation of their designs, documentation of required information and project certification through these building environmental rating systems. Our historic preservation expertise includes evaluation of existing building conditions, assistance with appropriate preservation materials and methods and verification that standards and codes are being properly followed.

ENVIRON professionals are recognized leaders in the field and routinely assist private and public property owners, managers, architects, attorneys and insurers to meet their most demanding needs relating to the inspection, testing, design and repair of building components. The in-house collaboration that takes place among our professionals offers building owners a single-source consultant for building-related problems.

- **Building Envelope Failure Analysis:** Evaluations of roofs, walls, windows and foundations that create deficiencies and cause functional problems.
- **Moisture Intrusion Diagnostics:** Inspection and testing to determine where and how water is entering and moving within a building.
- **Building Façade Inspections:** High rise buildings should be inspected periodically for the integrity of façade materials. Some building codes mandate these inspections.
- **Building Condition Assessments:** Commercial buildings are evaluated for condition in association with real estate transfers or refinancing.
- **Building Repair Specifications and Cost Estimates:** Preparation of design documents that enable owners to anticipate costs and obtain bids for needed repairs.
- **Design, Construction and Furnishing Technologies:** Selection and application of environmentally friendly techniques and products.
- **Historic Building Restoration/Preservation:** Special studies and consultation is provided on how to sustain historic buildings.
- **LEED Certification Assistance:** Comprehensive services assist building owners desiring LEED Certification.
- **Project Management:** Services that help building owners by providing management of repair and restoration contractor activities and contract requirements.
- **Energy Management and Auditing:** Strategic energy planning and implementation coupled with audits to locate potential savings and to document successful energy usage reduction.
- **Litigation Support:** Development of scientifically based reports on building and building environmental issues along with associated expert testimony.

Construction and Construction Management

ENVIRON has performed construction and construction management services for a wide range of clients throughout the United States. Our construction management and financial review services include:

- Preparing bid packages for environmental remediation, prequalifying and evaluating bidders' costs, administering bid walks and responding to bidder comments, and selecting the project contractor.
- Monitoring the progress of the project with respect to meeting technical requirements and contractual provisions, third party oversight on applications for payment, preparation of documents related to project scope

changes including value engineering approaches, preparation of submittals and coordination of on-site engineering.

- Providing administrative support to the project, reviewing subcontractor procedures and work to ensure compliance with both the contract and subcontracting goals as they are defined in the technical specifications and executing the work plan.
- Preparing all invoicing documents in compliance with contract requirements, maintaining all records related to the project and performing all project accounting.
- Performing regulatory compliance and permitting with local regulatory agencies and officials.
- Monitoring the project's progress against the planned schedule.
- Managing all project subcontractors and selecting vendors, as well as directly managing the project's functional support groups.

ENVIRON maintains a high standard of environmental compliance and verifies adequate assessment and management of environmental issues on site. Where appropriate to the site and type of project, these include:

- Initial preconstruction activities that are required before any on-site activities are allowed, including the preparing and submitting of Soil and Water Management Plans, Field Operations Plans (FOPs) and Remedial Action Work Plans (RAWPs).
- Overseeing and monitoring environmental and related construction actions such as excavations, underground storage tank (UST) removal, groundwater remediation, building demolition and soil and construction and demolition debris disposal.
- Preparing and implementing site specific Health and Safety Plans (HASPs) and conducting site management and oversight to ensure health and safety compliance.
- Planning, directing and coordinating all baseline monitoring activities performed on site. This includes monitoring technicians, drilling activities and specialty subcontractors.

ENVIRON can also act as an environmental general contractor, depending on state regulations, in cases where our clients desire a "one-stop shop" of investigation-design-remediation services. We can implement any of the major existing remediation technologies.

Representative Clients and Projects

Representative Clients

ENVIRON staff have provided real estate services to hundreds of clients in the US. A representative list of clients includes the following:

Albertson's/SuperValu
Abercrombie & Fitch
Bank of America
Bass Pro Shops
CBRE
Centro Properties
Cushman & Wakefield
CVS
Edens & Avant
Eastern Bank
Linear Retail Properties
Knowledge Learning Corporation
Macy's
Marcus & Millichap
New England Development
OfficeMax
PetSmart
Rite-Aid
Realm Realty
Regency Centers
Simon Properties
Stop & Shop Companies
TJX
Target
The Men's Wearhouse
Time Equities
Toys R Us
Walgreens
Wal-Mart
Wells Fargo Bank
White Castle

Representative Projects

A representative list of ENVIRON projects is presented below:

- For a **real estate developer, ENVIRON completed Phase I ESAs of more than 30 properties** the client was purchasing from a bank, including office buildings, shopping centers, apartment buildings, residential developments and vacant land. By mobilizing a large assessment team, ENVIRON was able to complete the assessments and reports for all sites in less than one month. ENVIRON subsequently conducted Phase II sampling at six of the properties to address potential environmental concerns including former underground tanks, stained soils, potentially contaminated fill material and dry cleaning operations.
- ENVIRON conducted environmental due diligence for a private equity client in connection with its acquisition of a nationwide retail grocery and convenience store chain that operated approximately 350 supermarkets and convenience stores, of which 133 also operated as retail gasoline stations. During the project, ENVIRON completed **Phase I ESAs at the 125 owned operating locations, conducted a comprehensive review of the company's UST management program** and completed an evaluation of potential remedial liabilities associated with 85 locations where leaking UST incidents were being addressed. All project work was completed within a four-week window. Subsequent to the client's successful

acquisition of the chain, ENVIRON also served as the main technical environmental contact in facilitating the client's negotiation of a sale leaseback transaction involving the company's owned real estate.

- ENVIRON conducted **asbestos, mold and RM investigation** and abatement services for hundreds of retail and financial institution sites at locations nationwide, for a multi-client portfolio of sites.
- On behalf of an equity owner, ENVIRON completed pre-sale due **diligence reviews of 78 retail units** located in the UK, Spain, Portugal, France and Germany. ENVIRON mobilized a team of site auditors to assess sites and conducted desktop assessments of available public database and regulatory authority information in order to evaluate contamination and other liabilities. ENVIRON subsequently conducted intrusive subsurface investigations at four of the UK properties to more clearly define environmental risks.
- For a refinance project, ENVIRON performed **Phase I ESAs** of 18 building properties located in Texas, California, Ohio, Illinois, Colorado and Virginia.
- On behalf of a law firm and a multinational property development company, ENVIRON conducted a pre-acquisition **environmental assessment and regulatory compliance** review of a luxury personal products company in France.
- A major investment banking group retained ENVIRON to conduct **ESAs at six resort properties** located in Thailand and the Philippines.
- ENVIRON conducted pilot studies at an office park where radon concentrations as high as 9.2 pCi/L were previously measured within occupied spaces. This work included the evaluation of radon migration pathways and radon mitigation alternatives. Following definition of the effective radii of influence under various operating conditions, ENVIRON designed a **radon mitigation system** consisting of an active sub-slab depressurization system of vertical extraction points within affected areas, which through manifolds, discharge through a header pipe exhausting to the roof. In addition to achieving the performance goals, the design attempted to minimize impacts to existing tenants and to the amount of rentable footprint that would be compromised by the presence of vertical extraction points.
- ENVIRON was retained by a private equity firm to conduct **environmental assessments of a 370-site portfolio** of the Germany-based Metro Group.
- ENVIRON completed **detailed ESAs** of a more than 70-site portfolio in Germany involving retail markets, fashion retailers, do-it-yourself markets, logistics centers and retirement homes.
- ENVIRON was retained to address **vapor intrusion concerns at a shopping center** in Parsippany, New Jersey. As part of this project, ENVIRON performed the vapor intrusion assessment to evaluate subslab and indoor air levels of chlorinated volatile organic compounds resulting from high levels of dry cleaning solvent in soil and groundwater. Based on the vapor intrusion investigation, ENVIRON designed and managed the implementation of soil vapor extraction/vapor mitigation system (SVE/VMS). The SVE/VMS involved horizontal drilling of subslab laterals and the installation of a vapor extraction trench behind the building, air permitting and air emission controls.

- ENVIRON completed **ESAs** of 14 GALERIA department stores in Germany.
- ENVIRON has conducted **groundwater, indoor air and sub-slab vapor sampling to identify migration pathways for the tetrachloroethylene contamination** suspected of resulting from a dry cleaner operation within a shopping mall in northern Virginia. Elevated concentrations of tetrachloroethylene were detected at a day care facility located within the same mall as a dry cleaner. The investigations identified a mass of tetrachloroethylene under the dry cleaner as source for sub-slab contaminant migration and the dry cleaning equipment as a source of tetrachloroethylene migration through retail space divisor walls. Following modifications to the dry cleaner equipment, ENVIRON designed and installed a sub-slab vapor extraction system consisting of vertical extraction points installed through the floor within the active dry cleaner and monitoring pressure probes located throughout the mall area.
- ENVIRON completed **ESAs** of 18 resort hotels in Finland and Sweden.
- On behalf of a major international hotel chain, ENVIRON undertook a **due diligence review of 50 properties** and other international properties in anticipation of an intended purchase. The properties (located in the UK) comprised hotels, resorts, residences and serviced apartments, meeting and conference facilities, and health clubs.
- ENVIRON performed investigations of more than 20 sites across China **ESAs and Phase II baseline soil and groundwater** for a major US investment bank. The sites included office buildings, apartment buildings, department stores, real estate development sites and large residential buildings.
- ENVIRON was retained by a residential developer to conduct a **Phase I and II ESA of approximately 30 acres** of the former NFD at Point Molate in Richmond, California. ENVIRON's assessment was conducted for the developer in connection with an anticipated real estate acquisition and potential redevelopment by the residential developer as part of the developer's agreement with Upstream LLC. As part of the ESA, ENVIRON performed an extensive review of environmental documents related to prior operations at the NFD by the US Navy and documents related to the planned cleanup of the site. ENVIRON also met with the SFRWQCB to discuss what additional remediation activities would be required in the event single family homes were to be constructed on a portion of the site. In addition, ENVIRON performed a Phase II sampling investigation which involved collection of soil gas samples and soil samples in several areas of the former NFD.
- ENVIRON provided environmental and engineering consulting services to the State of California Department of General Services (DGS) Real Estate Division regarding the closure and sale of the approximately 17-acre former University of California agricultural research center in Santa Clara, California. ENVIRON's scope of work included completion of an environmental assessment and investigation of the research center. The investigation included **soil sampling for pesticides, an investigation of former underground storage tanks (USTs), septic system and former evaporation pond**. The findings from the assessment and investigation were documented in a site characterization report which was submitted to the California Department of Toxic Substances Control (DTSC). Following approval of the report by

the DTSC, ENVIRON prepared a remediation plan which was subsequently approved by the DTSC. ENVIRON is currently under contract to the DGS to oversee implementation of the remediation plan.

- ENVIRON provided **environmental and engineering consulting services for the redevelopment** area at the Hitachi Global Storage Technologies, Inc. (Hitachi GST) site in San Jose, California. The redevelopment area is a 143-acre former industrial property operating under a Resource, RCRA Permit from the DTSC. The parcel is part of a larger 332 acre site. Hitachi GST is consolidating industrial operations on the core area, and selling off 143 acres to be rezoned, and redeveloped into a mixed residential, commercial and recreational open space area. ENVIRON's original work at the site was conducted for the EIR consultant, David J. Powers & Associates, on behalf of the City of San Jose. This work included two human health risk assessments in support of the EIR. One risk assessment, the screening air toxics risk assessment, addressed the potential exposure to facility emissions (mainly emergency generators) due to the decreased proximity of the facility to nearby residential/commercial areas. The objective of the second risk assessment, the screening soil/groundwater risk assessment, was to identify potential areas within the redevelopment area needing further investigation and/or mitigation prior to redevelopment. Upon completion of the risk assessments, ENVIRON continued work on behalf of Hitachi GST to assist them in site characterization, remediation and state oversight agency negotiations. As planned, the client received site closure on all soils at the end of 2007, and remediation continued on a small area of groundwater contamination through 2008.
- The **redevelopment of the 300-acre Mission Bay Project Area required characterization and management of soil and groundwater** left from 150 years of industrial use. Most of the area was covered by shallow fill moved from other parts of San Francisco beginning in the mid-1800s through the early 1900s. Additional sources of chemicals included spills and/or leaks from underground and above ground storage tanks, and releases from numerous facilities, such as former bulk oil storage, pipelines and transfer facilities. The proposed land uses for the Mission Bay Redevelopment Area include 7.65 million square feet of office, biotech, research and development, multimedia space, and a research campus for the University of California at San Francisco; 850,000 square feet of retail/entertainment development; 6,000 residential units; and a 500-room hotel. Daycare centers and a primary school may also be located in the area.

  ENVIRON's role over a two-year period of involvement included an environmental fatal flaw analysis, strategic consultation on approach to environmental management, characterization of site environmental conditions, human and ecological risk assessment, risk management plan development, remediation design and cost estimates, and regulatory interface. The human health risk evaluation was conducted by developing site-specific target levels using state-of-the-art risk assessment techniques and assumptions set by USEPA, Cal/EPA, and the California Regional Water Quality Control Board—San Francisco Bay Region (SFRWQCB).

  During the course of field investigation, an area of separate-phase hydrocarbons was discovered adjacent to San Francisco Bay. ENVIRON played a key role in providing technical oversight on remediation planning for the construction of

municipal utilities within the hydrocarbon area and protection of San Francisco Bay from contaminants. Additional work conducted as part of the investigation included a tidal influence study that was critical in the evaluation of ecological impacts.

Existing concentrations of chemicals detected in soil and groundwater at the site are being managed through the use of individualized Risk Management Plans (RMPs). RMPs include the implementation of procedures such as development of a health and safety plan for workers at the site, use of dust control measures during site construction, and elimination of access to soil and groundwater after development. Post-development guidelines for maintenance of the site were provided in the RMPs to ensure that risk management measures continue to be effective.

- For a large developer and landowner, ENVIRON provided **third-party oversight and review of remediation work** conducted by others in the Mission Bay Development Area of San Francisco, California, between 2004 and 2006. Large areas of the site, historically part of bulk oil storage operations, were impacted with a variety of environmental contaminants ranging including petroleum hydrocarbons and heavy metals. Remedial activities at the site were conducted between 2005 and 2006 under the purview of the SFRWQCB. ENVIRON's project oversight on behalf of its client included the active supervision of contaminated soil and groundwater removal operations performed by the responsible party, participation in weekly stakeholder meetings to assess and monitor remediation progress and schedules, review of third party reports prior to submission to the SFRWQCB, and interacting with local regulatory agencies, consultants and the responsible party on behalf of the property owner.
- ENVIRON developed **a risk-based remediation strategy for a $10 million redevelopment of a 200-acre former northern California refinery for residential use**. ENVIRON's work focused on developing preliminary risk-based remediation goals for refinery related products (including TPH, BTEX [benzene, toluene, ethylbenzene and xylenes], and methyl tertiary butyl ether [MTBE]) in soil and groundwater based on both human health and potential threat to aquatic life in the adjacent San Francisco Bay waters. Working closely with the redevelopment team, ENVIRON developed data gaps and refined the remediation goals as the refinery was dismantled, additional data were obtained, and the site grading plan was finalized. Following implementation of dual phase groundwater remediation over a two-year period, ENVIRON used a combination of tidal dilution and groundwater transport modeling to demonstrate that residual chemical concentrations in groundwater were below acceptable ecological risk-based remediation goals. The results of natural attenuation monitoring were also used to demonstrate that conditions favorable to biodegradation were present, and that residual chemical concentrations would continue to decrease over time. ENVIRON successfully presented the risk-based approach for approval by state and local agencies. In addition, ENVIRON developed an ambient air monitoring program and conducted monitoring for airborne chemicals, odor and dust at the site perimeter during dismantling of the refinery. ENVIRON successfully presented the risk-based approach for approval by state and local agencies. The SFRWQCB issued a No Further Action

(NFA) letter in November 2001. The residential development has since been completed.

- ENVIRON provided **third-party oversight and review for remediation work conducted by another consultant at a former federal aerospace facility** located in southern California. This site was redeveloped for retail use by the current site owner (ENVIRON's client), while remediation was conducted by the prior property owners and its consultant. Remedial activities, which are ongoing and are being conducted by another consultant, involve both soil and groundwater remediation. On behalf of its client, ENVIRON attends meetings, reviews and comments on reports/agency submittals, and reviews the overall adequacy and success of the conducted remediation in terms of achieving site closure and accomplishing client objectives. ENVIRON has been providing third party review at this site for approximately three years.
- As part of planning for site redevelopment in Hoboken, New Jersey, investigations identified concentrations of trichloroethylene in groundwater beneath the site. As a result, remediation of groundwater was required and mitigation of vapor intrusion into the buildings was required. In-situ groundwater remediation will be performed concurrent with the building construction. ENVIRON was retained to design a **sub-slab VMS** at the site to prevent the migration of subsurface vapor into the building. The design of the VMS accounted for potentially elevated levels of vapors that may result from planned in-situ groundwater remediation activities. The VMS design was coordinated with the proposed foundation design to optimize hydraulic performance and ease of implementation. The design also accounted for air permitting and/or control devices and costs.
- ENVIRON provided **human health risk assessment** services as part of an investigation at a Former GM Delco Chassis Division Facility in Rochester, New York. This work was performed under an Order on Consent between New York State Department of Environmental Conservation (NYSDEC) and GM. As part of this work, ENVIRON provided technical direction in the planning of the remedial investigation activities, including the strategy for evaluating potential vapor intrusion from soil and groundwater. ENVIRON initially conducted site-specific vapor intrusion modeling based on soil and groundwater sampling to assess the potential significance of this pathway. The modeling results were used, in part, to plan indoor air and sub-slab soil vapor sampling to verify the modeling results. This sampling work was conducted consistent with New York State Department of Health (NYSDOH) guidance for evaluating soil vapor intrusion. The human health risk assessment determined that the effects of vapor intrusion, if any, are indistinguishable from indoor and outdoor sources; these conclusions were supported by the indoor air, sub-slab vapor, and outdoor air data collected at the site in April 2006.
- ENVIRON provided third-party oversight and due diligence review of a former military base in southern California. The **due diligence was performed as part of the residential redevelopment of the approximately 40-acre property**, and included the review of extensive historical documentation of industrial activities on the site. ENVIRON also conducted third-party oversight of additional characterization and remediation activities conducted by the sellers' consultants, which included soil excavation and soil gas sampling.

- ENVIRON provided a full range of environmental due diligence services to a residential real estate development company with significant land holdings in Seattle. ENVIRON conducted pre-acquisition **environmental due diligence, supervised hazardous material sampling programs (asbestos, lead based-paint and polychlorinated biphenyls), and performed indoor water intrusion/mold assessments**. The majority of the properties had been developed for industrial purposes for more than 50 years, and many required Phase II assessments, remedial actions and long-term compliance monitoring. ENVIRON staff regularly interacted with regulatory personnel to evaluate cleanup goals and alternatives, establish compliance monitoring programs, and negotiated site closure through the Washington State Department of Ecology's Voluntary Cleanup Program (VCP), often under very short timeframes.
- ENVIRON assisted a land developer with successful site acquisition, investigation, mitigation and redevelopment of a former railyard property for multitenant residential use in San Francisco, California. Investigation activities included conducting a **Phase I environmental site assessment and a Phase II site investigation, followed by further soil vapor sampling** to evaluate the potential for methane accumulation and vapor intrusion into future residential living spaces. ENVIRON assisted with the design of a methane mitigation system (vapor barrier and venting system), developed a post-construction methane monitoring program, conducted agency negotiations and provided training to property maintenance personnel to implement post-construction monitoring.
- ENVIRON worked closely with a private developer, the City of Emeryville Redevelopment Agency and the California DTSC to **negotiate closure and redevelopment of a 20-acre former industrial site contaminated with heavy metals, benzene and pesticides/PCBs**. The site was to be redeveloped for multi-family residential and other uses. Closure of the site was contingent upon implementation of deed restrictions and a risk management plan. ENVIRON worked closely with the relevant agencies and the private developer to finalize the risk management plan and obtain site closure. ENVIRON implemented the risk management plan during site construction and development activities and worked with the developer on several cost recovery actions with respect to additional contamination that was identified during development.
- ENVIRON assisted the developer of a **former oil field property in Huntington Beach, California, slated for redevelopment as a condominium complex**. ENVIRON performed a Phase I of the property, followed by a Phase II subsurface investigation that included soil gas sampling for volatile organic compounds, methane and hydrogen sulfide.
- ENVIRON has conducted site evaluations of a number of former agricultural properties where residential development was planned, to **address soil contamination associated with historical application of agricultural-related chemicals**. ENVIRON developed innovative solutions that allowed site development to proceed with regulatory agency approval.
- ENVIRON designed and inspected the construction of **environmental controls for a redevelopment project** in Jersey City, New Jersey, where trichloroethylene and vinyl

chloride were present in soil gas. The environmental controls included upgrading an under-performing passive VMS to an active depressurization system to meet NJDEP performance requirements; designing sub-slab active VMS for various proposed building configurations; and evaluating an existing capillary break system.

Upon successful installation of the designed systems, ENVIRON developed performance criteria for the gas control systems based on pressure and/or velocity testing in lieu of indoor air sampling and received a No Further Action approval. In addition, ENVIRON prepared an inspection and monitoring plan (IMP) for all engineering controls at the site, which include a containment system and a soil cap in addition to the controls listed above. Currently, ENVIRON is monitoring system performance and conducting engineering control inspections in accordance with the IMP and submitting biennial certifications to the state.

- ENVIRON was retained by a commercial land developer to **mitigate potential vapor intrusion and procure environmental permits at a closed C&D landfill** located in the Meadowlands area of northeastern New Jersey. The landfill redevelopment included the Meadowlands Partners Distribution Center, a 335,000-square-foot facility. Considering the elevated methane levels at the site resulting from degradation of municipal sewage sludge that was co-disposed in the landfill, a two-tier gas control system consisting of a deep extraction system and a subslab ventilation system was designed to control vapor migration. Following construction of the gas control system, ENVIRON monitored the system performance and conducted system optimization.
- On behalf of a automotive manufacturer, ENVIRON conducted an **assessment of regulatory requirements** governing the application of petroleum-based coatings to used truck frame rails at over 600 dealership locations in 22 states and 500 different local municipalities. The purpose of this assessment was to identify modifications required to building ventilation and fire safety systems to allow the implementation of a new coating operation. The scope of this project required the identification of specific Environmental, Fire, Health & Safety (EFH&S) regulatory requirements that would apply to the use of specified coating materials and procedures for the building areas where the process would be implemented. ENVIRON's evaluation the proposed coating operations, material storage and waste management in the context of the federal, state and local regulatory requirements were used to compile an easy-to-use state environmental, health and safety regulatory package for each of the subject states and dealership locations that would be delivered to dealerships for their reference and use in obtaining permits and modifying facility infrastructure prior to rollout of the coatings program.

CORPORATE OVERVIEW

HISTORY

Tocci Building Companies are third generation successors of John Tocci & Sons, a general contracting business founded in 1922 by Giovanni Tocci. Giovanni, a skilled mason, emigrated from Italy to Newton, MA, in 1917. By 1922 he had formed his own enterprise—a general contracting service providing multi-trade expertise for building single family homes and small commercial buildings. In the mid 1950s his son, Valentino Tocci, assumed control of the firm. Val, an expert mason and accountant, grew the company into a respected medium-sized concern

specializing in public construction including schools, libraries and municipal housing. John L. Tocci, Val's son and current CEO, took the helm in 1985. John is a widely recognized early adopter and innovative user of advanced building science technology and project delivery methods. He has grown the company into a multi-million dollar firm servicing private and public residential, commercial and institutional owners and developers.

SERVICE

Tocci has devoted the past thirty years to promoting better company and industry practices: bettering business conduct, partner relationships and project execution. Virtual Design and Construction and Building Information Modeling (VDC/BIM) are central to the success of this mission. Our use of VDC/BIM enhances design and building performance and measurably improves the product we deliver through our broad range of services.

Our services include:

- Pre-construction
- VDC/BIM Project Execution Planning
- LEED® Project Support
- General Contracting
- Construction Management at Risk
- Agency Construction Management
- Design-Build
- Integrated Project Delivery
- Turnkey Services

Many of our VDC/BIM protocols have been adopted by the American Institute of Architects and the Associated General Contractors of America as recommended best practice. They significantly contribute to achievement of the goals we set for each project:

- reduced fit and technical problems
- minimized cost overruns
- minimized schedule delays
- minimized non-discretionary change orders
- zero safety issues and lost work days
- minimized litigation

RECOGNITION

We motivate the whole team to "work for the project." This philosophy rewards stakeholders with a highly satisfying project experience. And often leads to professional recognition.

2011 AGC Build New England Performance Award, Park 87

2010 International Interior Design Best Office Award, Autodesk AEC HQ

2009 BusinessWeek & Architectural Record Design Award, Autodesk AEC HQ

2009 AIA Technology in Architectural Practice Building Information Model (BIM) Award, Autodesk AEC HQ

2009 AGC Build New England Honor Award, Autodesk AEC HQ

2008 ABC Merit Construction Award, Element® and Aloft® Hotel Campus for Starwood

2008 ENR Top Newsmakers of the Year, John Tocci

RELEVANT EXPERIENCE

Tocci has an earned reputation for committed excellence in building multi-unit housing for affordable, market rate and luxury markets. Our portfolio includes new-built, adaptive reuse and historic renovations. We have built single and multi-phased projects funded through a variety of mechanisms including HUD.

Below is a list of relevant projects Tocci has built followed by a pictorial of our work. The pictorial includes new-built multi-unit housing and office TI work that represent a level of achievement and craft that will interest you in the context of your project.

Adaptive Reuse Portfolio

Abbot Mill
Location Westford, MA
Client Yale Development
Architect Ganek Architects
Stats 2012 . 134 unit mill to apartment conversion $23.0m

Monarch Lofts
Location Lowell, MA
Client Mass Innovations
Architect Finegold Alexander Architects
Stats 2012 . 198 unit mill to apartment conversion . $21.0m

Autodesk NH
Location Manchester, NH
Client Autodesk, Inc.
Architect KlingStubbins
Stats 2013 . 40,000 ksf, 2-floor office TI in historic mill building

One Russell Street
Location Cambridge, MA
Client One Russell Street LLP
Architect Weaver & Associates Architects
Stats 2007 . 24 unit nursing home to condo conversion . $6.5m

Landmark at Monastery Heights
Location West Springfield, MA
Client Simsbury Associates, Inc.
Architect EGA Architects
Stats 2001 . 105 unit monastery to ALF conversion . $7.3m

Muzzey Condominiums
Location Lexington, MA
Client Noyes Corporations
Architect Notter, Finegold and Alexander
Stats School to condo conversion

Tocci Building Companies Corporate Building
Location Woburn, MA
Client Tocci Building Companies
Architect Bergmeyer Associates
Stats 2000 . factory to office conversion

Harbor View Hotel
Location Martha's Vineyard, MA
Client First Winthrop Corporation
Architect The Preservation Partnership
Stats 1990 . gut rehab of historic hotel

Powder Mill Square
Location Andover, MA
Client Northpoint Realty Development
Architect Chan Krieger Sieniewicz
Stats 2006 . mill property; 60 units in new and re-purposed buildings . $14.3m

APPENDIX F: FUSS & O'NEILL – CORPORATE OVERVIEW

FUSS & O'NEILL

committed to sustainable solutions

Corporate Overview

Fuss & O'Neill has been delivering a comprehensive suite of engineering services that include scientific, engineering, planning and design disciplines serving both public and private sector clients, for more than 85 years. Our team of 300 employees across six office locations provides multidisciplinary solutions for our clients that maximize value and best address long term needs. This approach generates superior results because every member of our team is committed to understanding the problems and priorities to develop a coordinated and clear articulation of solutions that lead to your desired result.

Fuss & O'Neill began as a land surveying firm that evolved into a civil engineering firm and then into a full service engineering, planning and landscape architecture firm. When the first environmental regulations were developed in the 1970s, Fuss & O'Neill began providing environmental services to government, institutional, and private entities to meet their evolving needs.






Our core company disciplines:

- Civil Engineering
- Design Build Delivery
- Energy Alternatives
- Energy Services
- Environmental Services
- Facilities Engineering
- Land Development
- Landscape Architecture
- Manufacturing Solutions
- Structural Engineering
- Transportation Planning
- Utilities Engineering
- Water & Wastewater
- Water Resources

Business Entities include:

- Design Build
- Manufacturing Solutions (Lean Manufacturing and Preventive Maintenance)
- EnviroScience (Building Hazardous Materials and Human Health)

www.fando.com

Land Development

Riverfront Lofts Artist Live-Work Space
Pawtucket, RI

University of Connecticut
Storrs, CT

Smith College Campus
Northampton, MA

Fuss & O'Neill offers concept-to-completion services for clients in a complex regulatory system, with increased environmental awareness.

Site Planning & Engineering

- Master Planning
- Site Feasibility Studies
- Sustainable Site Design
- Regulatory Requirements/Permitting
- Infrastructure Needs
- Drainage Review and Design
- Wetlands Delineation, Mitigation & Creation
- Utility Planning and Design
- Landscape Architecture
- Erosion and Sedimentation Control
- Construction Administration & Inspection

Transportation

- Traffic Impact Studies
- Signalization Design
- STC Certification
- Access and Circulation Planning

In-house Survey

- Boundary Surveys
- Topographic Surveys
- Aerial Survey Control
- Global Positioning Systems
- Facility Management (GIS)

Environmental

- Environmental Site Assessments
- Storm Water Management
- Hydrologic Studies
- Storm Water Quality Mitigation